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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/643,716   | 08/19/2003  | Norihisa Sasano      | 4041K-000147        | 5122             |
| 27572  | 7590        | 07/06/2006           | EXAMINER            |                  |
| HARNESS, DICKEY & PIERCE, P.L.C.<br>P.O. BOX 828<br>BLOOMFIELD HILLS, MI 48303 |             |                      | SWENSON, BRIAN L    |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3618                |                  |

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |               |  |
|------------------------------|-----------------|---------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)  |  |
|                              | 10/643,716      | SASANO ET AL. |  |
|                              | Examiner        | Art Unit      |  |
|                              | Brian Swenson   | 3618          |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 March 2006 has been entered.

### ***Response to Amendment***

2. Applicant's amendment, filed 30 March 2006, with respect to 35 USC 112, 2<sup>nd</sup> paragraph rejections have been fully considered and are persuasive. The 35 USC 112 rejections of claims 1-7 have been withdrawn.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,058,558 issued to Ueda et al.

Ueda et al. teaches in Figures 1-16 and respect portions of the specification of a:  
vehicle front end structure comprising;

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an axial flow fan (52) having, in turn, a rotating shaft which extends in a longitudinal direction of a vehicle (see Figure 2) and adapted for supplying cooling air to a radiator (51);

an intercooler (17; Figure 1) for cooling air drawn into an internal combustion engine; and

an air cleaner (13), provided on a downstream side of an air flow relative to an inlet (Figures 1 and 2; the inlet is unlabeled but is inherently contained on the outer periphery of the air cleaner and connected to air intake duct 26) of the air cleaner from which air drawn into the internal combustion engine is introduced, for removing dust in the air so introduced, wherein

the inlet of the air cleaner is positioned opposite to the intercooler across the axial flow fan as viewed in the longitudinal direction of the vehicle (Figure 1),

the air cleaner is positioned at a location where the air cleaner deviates from the intercooler as viewed in the longitudinal direction of the vehicle (Figure 1),

the axial flow fan rotates in a direction which deflects an air flow blown out of the axial fan to an intercooler side (air will be blown to the left side of inter cooler 17 as viewed in Figure 2), and the

inlet of the air cleaner is in communication with air at a location behind the radiator as viewed in the longitudinal direction of the vehicle (see Figure 2, where the inlet of the air cleaner (13) is connected to duct (air intake 26)).

In regards to claim 4, see Figure 2 of Ueda et al. where radiator (51) is shown parallel to fan (52).

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In regards to claim 5, Figure 2 of Ueda et al. shows the fan is (52) located rearward of radiator (51) and obstacle (53) interrupts the flow of air rearward of the fan.

In regards to claim 6, Ueda et al. shows the inlet (26) of the air cleaner is made to open on an opposite side of the intercooler.

In regards to claim 7, Ueda et al. shows the axial fan will rotate to direct air rearwards toward the engine of the vehicle, by inspection Figure 2 shows the intercooler (17) is placed in front of the fan and therefore in front of the axial flow.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al., as disclosed above in reference to claims 1 and 4-7.

Ueda et al. discloses the claimed invention including showing a bell-mouth air guide (26) for guiding air in front of the vehicle to the intercooler (see Figure 1 where air enters the bell-mouth flows through elements (3,13,13,22,15,16) and enters intercooler (17). Ueda et al. shows in Figure 2 the bell-mouth inlet (26) positioned above the radiator (51) but does not explicitly state if the bell-mouth is fastened on a radiator support or is made integral with the support. It would have been obvious to one having ordinary skill in the art at the time of invention to fasten the bell-mouth inlet to the radiator support to provide a secure mounting point to prevent vibration in the tubing

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line. It would have been obvious to one having ordinary skill in the art at the time of invention to form the bell-mouth inlet integrally with the radiator support, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art.

### ***Response to Arguments***

Applicant's arguments filed 30 March 2006 have been fully considered but they are not persuasive. Specifically, applicant argues that, "claim 1 [has been] amended to define that the inlet of the air cleaner is in communication with air at a location behind the radiator as view in the longitudinal direction of the vehicle." See annotated Figure 2, of Ueda et al., for further clarification of the office's position.

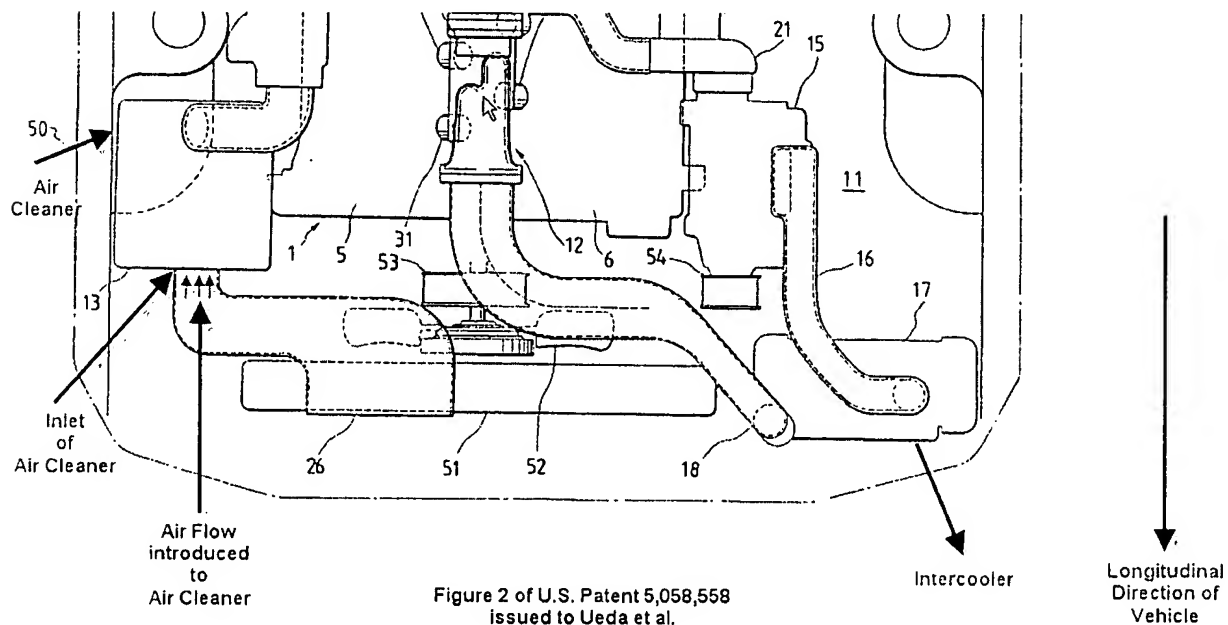


Figure 2 above shows the inlet of the air cleaner:

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- is provided on a downstream side of an air flow relative to an inlet of the air cleaner
- is positioned opposite to the intercooler across the axle flow fan (element 52) as view in the longitudinal direction
- the inlet is in communication with air at a location behind the radiator (element 51) as viewed in the longitudinal direction of the vehicle.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Swenson whose telephone number is (571) 272-6699. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian Swenson

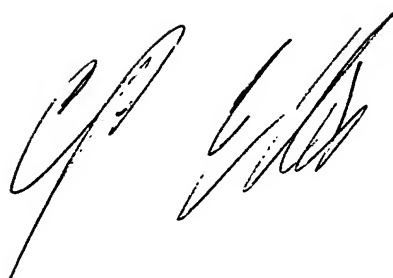
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bls

Examiner  
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A handwritten signature in black ink, appearing to read 'CP Ellis', written in a cursive style.

CHRISTOPHER P. ELLIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600